

# “Current Challenges in the Mass Spectrometry of Synthetic Macromolecules and Nanoparticles”

## The 5<sup>th</sup> NIST Polymer MS Workshop

March 6-7, 2008, National Institute of Standards and Technology, Gaithersburg, MD

Building 101, Lecture Room A

<http://www.nist.gov/maldi>

Chaired by:

William E. Wallace (NIST Polymers Division)

Philip C. Price (Dow Chemical Company)

### **Thursday March 6**

#### **Registration**

7:30 – 8:15 AM

Shuttle from Holiday Inn departs 7:30 AM; arrives at NIST main lobby ~7:45 AM  
If arriving by other means see [http://www.nist.gov/public\\_affairs/visitor/visitor.htm](http://www.nist.gov/public_affairs/visitor/visitor.htm)  
for directions and instructions for getting on the NIST campus.

#### **Welcoming Remarks**

8:15 – 8:30

W.E. Wallace (NIST Polymers Division)

#### **Desorption/Ionization**

Philip Price (Dow Chemical) presiding

8:30 – 9:30

Dr. Andrew J. Hoteling (Eastman Kodak, Rochester, NY)

*Mitigating Discrimination Issues in MALDI for Materials Applications*

9:30 – 10:30

Prof. Akos Vertes (George Washington University)

*Atmospheric Pressure Laser Ablation Ion Sources for Biomolecules and Synthetic Polymers*

10:30 – 11:00 Morning Break; Refreshments will be served

11:00 -Noon

Prof. Scott M. Grayson (Tulane University)

*Characterizing well-defined, complex macromolecular architectures using MALDI-TOF MS and NALDI-TOF MS: A synthetic macromolecular chemist's perspective*

#### **Lunch**

12:00 – 1:00 PM

NIST Cafeteria, use coupon provided, look for reserved tables in rear of dining area

#### **Poster Session**

1:00 – 2:30 PM

W.E. Wallace (NIST) presiding; Refreshments will be served

#### **Nanoparticle Mass Spectrometry** W.E. Wallace (NIST) presiding

2:30-3:30

Prof. Murray V. Johnston (University of Delaware)

*Nanoaerosol Mass Spectrometry*

3:30-4:30

Dr. George W. Mulholland (NIST/University of Maryland)

*Nanoparticle Gas-Phase Electrophoresis*

(Continued on next page)

4:30-5:30 Prof. Mark E. Bier (Carnegie-Mellon University)  
*Heavy Ion STJ Cryodetector Mass Spectrometry*

5:45 PM Shuttle Bus back to Holiday Inn

6:30 PM Banquet at Holiday Inn

### **Friday March 7**

8:00 AM Shuttle bus from Holiday Inn departs 7:30 AM; arrives at NIST main lobby ~ 7:45 AM

#### **Daily Announcements**

8:20 – 8:30 W.E. Wallace (NIST)

**Ion Mobility Mass Spectrometry** W.E. Wallace (NIST) presiding

8:30 – 9:30 Prof. Dr. Peter Chen (ETH Zürich)  
*Fourier Transform Ion Mobility Measurement of Chain Branching in Polyethylene*

9:30 – 10:15 Dr. Sarah Trimpin (Indiana University)  
*Snapshots of Gas Phase Separated Polymeric Materials*

10:15 – 10:30 Morning Break; Refreshments will be served

10 – Noon **Problem Solving Session**  
Here speakers present questions arising from their work, audience provides answers/suggestions  
If you wish to speak contact [william.wallace@nist.gov](mailto:william.wallace@nist.gov)

Noon **Workshop Closes**

Noon- 1:00 Lunch in NIST cafeteria, use coupon provided

1:00 PM Shuttle bus to Holiday Inn